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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,054	02/05/2004	Dale Cummins	60680-1812	2053

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EXAMINER

ORTIZ, ANGELA Y

ART UNIT PAPER NUMBER

1732

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/708,054	Applicant(s) CUMMINS, DALE	
	Examiner Angela Ortiz	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/2004</u> , <u>11/2 006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., USP 6,649,097 in view of Barton et al., USP 6,057,054.

The cited primary reference teaches the basic claimed process of molding a gasket on the edge of a sheet material to form a seal. The process includes molding elastomeric pliable gaskets within the edges of a carbon sheet used in a fuel cell. The pliable portions act as support means for forming a seal by engaging the edge of an adjacent sheet material. The detailed steps include opening the mold, inserting the composite-sheet device in the mold, closing the mold such that a groove around the edge and a through-hole of the device is formed. The mold portions mate and also seal the device. The groove-shaped cavity is connected to an injection conduit and an outlet conduit, wherein a vacuum is drawn at the outlet to pull the resin into the cavity at the inlet. Please see col. 5, lines 59-68; col. 6, lines 1-15, 22-30, 38-68; col. 7, lines 1-30.

The cited primary reference does not set forth the making of a gasket for a membrane electrode assembly (MEA).

The added secondary reference substantially teaches the basic claimed process of making a gasket for the edge of a MEA fuel cell. The detailed process steps include providing a fuel cell that uses a membrane electrode assembly (MEA) that consists of electrode layers, and an electrically conductive sheet material between the layers. The MEA is placed inside a mold, the mold is further provided with channels and dikes, the channels being profiled for forming ridges or ribs in the finally molded seal. A vacuum may be applied to the closed mold cavity to assist the injection of the resin material. A resin sealant material is injected into the mold, around the peripheral portion of the MEA to form the integral seal. It is known in the molding art to use a closed mold cavity in

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molding when drawing a vacuum, to further prevent the inclusion of additional air into the mold cavity, as it is desired to remove all air. See col. 5, lines 12-52.

It would have been obvious to form an edge gasket seal on any number of sheet materials, including an MEA fuel cell as shown in the added reference, as the process lends itself to the molding of a gasket on conventional fuel cell sheets where a peripheral edge seal is so desired..

With respect to claims 2, 3, 4, 5, 9, 10, note that the materials and ranges are conventional and similarly shown in the applied primary reference at col. 5, lines 1-10 and col. 15, lines 30-40.

With respect to claims 6, 14, see the primary reference at col. 8, lines 25-40.

With respect to claims 7 and 12, note that screen printing is an equivalent alternative application technique to that disclosed in the applied prior art reference; and insulative layers are conventional in the art and would have been obvious to so include for achieving an insulating effect.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP's 6261711; 6338492; 6596428; 6638656; 6653011.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Angela Ortiz
Primary Examiner
Art Unit 1732

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